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Conference Abstract

Systema Dipterorum

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Abstract

From its birth as the 'Biosystematic Database of World Diptera' in 1984, the 'Systema Dipterorum' (Evenhuis and Pape 2023) has grown into one of the largest databases currently maintained for the taxonomy and nomenclature of a single order of insects. Systema Dipterorum covers all two-winged insects (Diptera), and with almost a quarter of a million names representing more than 170,000 valid species distributed in some 13,000 valid genera, we cover about 10% of the described and named Animalia. About 1,000 new nominal species are described annually within Diptera. Data are entered in FileMaker Pro (database) and served through an online portal*[1] with an updated version currently provided every two months. Names are harvested and reviewed through a four-tier quality assurance hierarchy with entries eventually reaching taxonomic and nomenclatural standards equivalent to being published online. The nomenclatural status of each name is shown using 50 different codes, and at this moment a published authority source is linked to more than 70% of the entries. Universal Unique Identifiers (UUIDs) are automatically generated for every record of names and the more than 35,000 references. Names are made available for the Catalogue of Life, and we envision a web portal for seamless harvesting of new names and literature as well as for updating of both nomenclature and taxonomy by making changes and correcting errors with explicit reference to published authority sources. We envision the future for Systema Dipterorum to be a one-stop website, where clicking on a name resulting from a search may call up links to, e.g., its nomenclatural registry in ZooBank, the original description through the Biodiversity Heritage Library, taxonomic treatments from Plazi, images from Morphbank, occurrence data through the Global Biodiversity Information Facility (GBIF), molecular sequence data

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from GenBank, Barcode Index Numbers (BINs) from Barcode of Life, and additional data from many other sources.

Keywords

Diptera, nomenclature, quality assurance

Presenting author

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Conflicts of interest

The authors have declared that no competing interests exist.

References

- Evenhuis N, Pape T (2023) Systema Dipterorum: The BioSystematic Database of World Diptera. http://www.diptera.org/. Accessed on: 2023-7-29.

Endnotes

*1 http://www.diptera.org/